

IN THE CLAIMS

Please cancel all pending claims and add new claims 26-38 as follows:

Claims 1-25 (Canceled)

Claim 26 (New) A photopolymer data recording media for holographic imaging and data storage, comprising:

- (a) a substrate layer,
- (b) a capping layer; and
- (c) a photopolymerizable layer between the substrate layer and the capping layer, wherein the photopolymerizable layer comprises a photopolymerizable material including at least:
 - (1) an actinic monomer,
 - (2) a polyurethane matrix comprising the reaction product of:
 - (A) an aliphatic polyisocyanate comprising a dimer or trimer of 1,6 hexamethylene diisocyanate and having a viscosity of less than about 1,000 mPa·s, and
 - (B) a polyol, and
 - (3) a photosensitive initiator,

wherein said photopolymerizable layer has a solidification time no greater than about 12 minutes.

Claim 27 (New) A photopolymer data recording media for holographic imaging and data storage according to claim 26 wherein said photopolymerizable layer has a solidification time of less than about 8 minutes.

Claim 28 (New) A photopolymer data recording media for holographic imaging and data storage according to claim 26 wherein said polyol is selected from the group consisting of ethylene glycol, dimethylene glycol, pentanediol, trimethylolpropaner, pentaerythritol, 1,3-propanediol, glycidyl ethers, glycerol and glycerol propoxylate.

Claim 29 (New) A photopolymer data recording media for holographic imaging and data storage according to claim 26 wherein said polyol is glycerol propoxylate.

Claim 30 (New) A photopolymer data recording media for holographic imaging and data storage according to claim 26 wherein the substrate and capping layer are individually comprised of glass or plastic which is transparent to that electromagnetic radiation to which the photopolymerizable material is sensitive.

Claim 31 (New) The photopolymer data recording media of claim 26 wherein the polyol has a viscosity of about 1,000 to 5,000 cps.

Claim 32 (New) The photopolymer data recording media of claim 26 wherein the photopolymerizable material includes at least:

- (a) about 3 to 5 wt% actinic monomer;
- (b) about 95 to 97 wt% polyurethane matrix; and
- (c) an effective amount of photosensitive initiator.

Claim 33 (New) A method for holographically imaging a photopolymer data recording media, comprising:

- (a) obtaining a photopolymer data recording media, including at least:
 - (1) a substrate layer;
 - (2) a capping layer; and
 - (3) a photopolymerizable layer between the substrate layer and the capping layer, the photopolymerizable layer comprising a photopolymerizable material including at least:
 - (A) an actinic monomer,
 - (B) a polyurethane matrix comprising the reaction product of:
 - (i) an aliphatic polyisocyanate comprising a dimer or trimer of 1,6 hexamethylene diisocyanate and having a viscosity of less than about 1,000 mPa·s, and
 - (ii) a polyol, said photopolymerizable layer having a solidification time of less than about twelve minutes and
 - (4) a photosensitive initiator,

- (b) creating an interference pattern by interfering a data beam and a reference beam, wherein the data beam contains an information pattern and the data beam and reference beam are comprised of electromagnetic radiation to which the photopolymerizable material is sensitive; and
- (c) recording the interference pattern on the photopolymer data recording media in a pattern representative of the information pattern by exposing the photopolymerizable material to the interference pattern for a time sufficient to effect photo polymerization of the photopolymerizable material.

Claim 34 (New) The method of claim 33 wherein said photopolymerizable layer has a solidification time of less than about 8 minutes.

Claim 35 (New) The method of claim 33 wherein the polyol is selected from the group consisting of ethylene glycol, dimethylene glycol, pentanediol, trimethylolpropaner, pentaerythritol, 1,3-propanediol, glycidyl ethers, glycerol and glycerol propoxylate.

Claim 36 (New) The method of claim 33 wherein the substrate layer and capping layer are individually comprised of glass or plastic which is transparent to that electromagnetic radiation to which the photopolymerizable material is sensitive.

Claim 37 (New) The method of claim 33 wherein the photopolymerizable material includes at least:

- (a) about 3 to 5 wt% actinic monomer
- (b) about 95 to 97 wt% polyurethane matrix; and
- (c) an effective amount of photosensitive initiator.

Claim 38 (New) The method of claim 33 wherein the substrate layer and capping layer are individually comprised of glass or plastic which is transparent to that electromagnetic radiation to which the photopolymerizable material is sensitive.